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Dated: December 19, 2008  
Electronic Signature for Nicholas J. DiCeglie, Jr. : /Nicholas J. DiCeglie, Jr./

Docket No.: 68143(70820)  
(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Jun-Ichi Kawakami et al.

Application No.: 10/500,999

Confirmation No.: 3369

Filed: October 1, 2004

Art Unit: 1626

For: PROCESS FOR PRODUCING FUSED  
IMIDAZOLE COMPOUND, REFORMATSKY  
REAGENT IN STABLE FORM, AND  
PROCESS FOR PRODUCING THE SAME

Examiner: L. Stockton

SCANNED INTO  
IFW 12/19/08  
JMC

### AMENDMENT AFTER FINAL ACTION UNDER 37 C.F.R. 1.116

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Madam:

### INTRODUCTORY COMMENTS

In response to the Office Action dated August 21, 2008, finally rejecting claims 22-25 and 30, please amend the above-identified U.S. patent application as described herein. A Petition for Extension of Time for one (1) month from November 21, 2008 to, and including, Monday, December 22, 2008 is included herewith.

2009 JAN 27 PM12:03

**Listing of the Claims** begins on page 2 of this paper.

**Remarks/Arguments** begin on page 5 of this paper.

**LISTING OF THE CLAIMS**

This listing of claims will replace all prior listings and versions thereof.

1-21. (Cancelled)

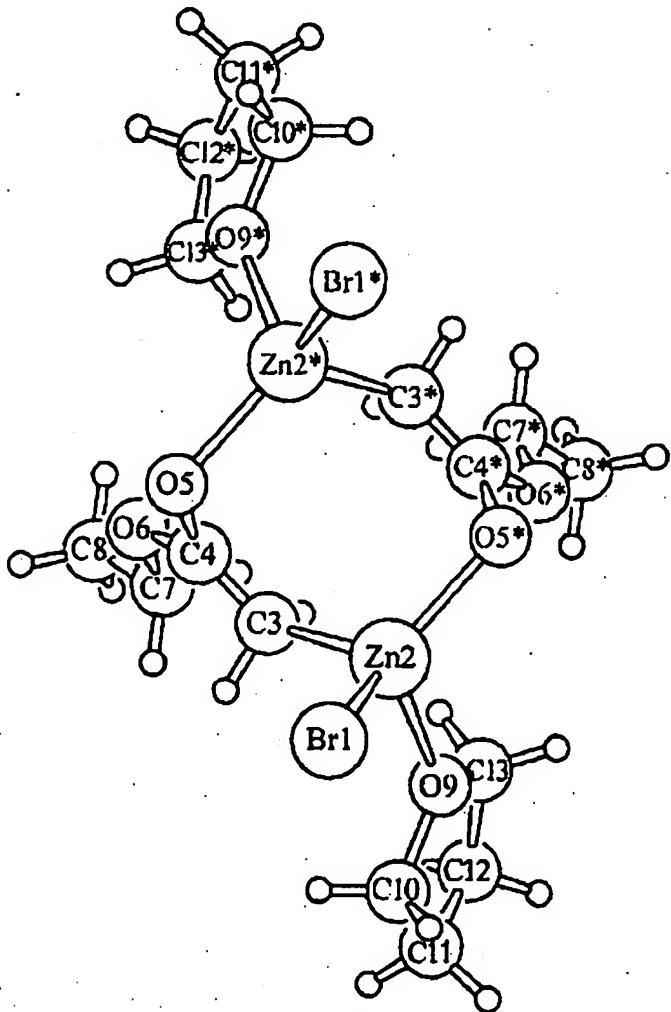
22. (Original) A crystal of ethyl bromozincacetate to which tetrahydrofuran (THF) coordinates:

23. (Original) The crystal of the compound according to claim 22, which is represented by a formula  $(BrZnCH_2COOC_2H_5\cdot THF)_2$ .

24. (Original) The crystal of the compound according to claim 22, which has peaks at 2983, 2897, 1589, 1446, 1371, 1286, 1070, 1022, 858 and 769 ( $cm^{-1}$ ) by IR.

25. (Original) The crystal of the compound according to claim 22, which has a structure determined by an X-ray crystallography:

Amendment dated December 19, 2008  
After Final Office Action of August 21, 2008



wherein the bond length of Br(1)-Zn(2) is 2.334 Å, the bond length of Zn(2)-C(3) is 1.996 Å, the bond length of Zn(2)-O(5) is 2.029 Å, the bond length of Zn(2)-O(9) is 2.049 Å, the bond length of C(3)-C(4) is 1.21 Å, the bond length of C(4)-O(5) is 1.47 Å, the bond length of C(4)-O(6) is 1.33 Å, the bond length of O(6)-C(7) is 1.46 Å, the bond length of C(7)-C(8) is 1.41 Å, the bond length of O(9)-C(10) is 1.42 Å, the bond length of C(9)-C(13) is 1.42 Å, the bond length of C(10)-C(11) is 1.49 Å, the bond length of C(11)-C(12) is 1.37 Å, and the bond length of C(12)-C(13) is 1.42 Å; and the bond angle of Br(1)-Zn(2)-C(3) is 112.4°, the bond angle of Br(1)-Zn(2)-O(5) is 122.5°, the bond angle of Br(1)-Zn(2)-O(9) is 105.0°, the bond angle of C(3)-Zn(2)-O(5) is 109.9°, the bond angle of C(3)-Zn(2)-O(9) is 91.3°, the bond angle of O(5)-Zn(2)-O(9) is

111.2°, the bond angle of Zn(2)-C(3)-C(4) is 129.6°, the bond angle of C(3)-C(4)-O(5) is 125°, the bond angle of C(3)-C(4)-O(6) is 120.6°, the bond angle of O(5)-C(4)-O(6) is 113°, the bond angle of Zn(2)-O(5)-C(4) is 108.1°, the bond angle of C(4)-O(6)-C(7) is 116°, the bond angle of O(6)-C(7)-C(8) is 111°, the bond angle of Zn(2)-O(9)-C(10) is 122.6°, the bond angle of Zn(2)-O(9)-C(13) is 122.8°, the bond angle of C(10)-O(9)-C(13) is 109.7°, the bond angle of O(9)-C(10)-C(11) is 104°, the bond angle of C(10)-C(11)-C(12) is 108°, the bond angle of C(11)-C(12)-C(13) is 109°, and the bond angle of O(9)-C(13)-C(12) is 106°.

26-29. (Canceled)

30. (Previously Presented) A crystal of a compound represented by a formula  $(\text{BrZnCH}_2\text{COOC}_2\text{H}_5\text{-THF})_2$  obtained by reacting a compound represented by a formula  $\text{BrZnCH}_2\text{COOC}_2\text{H}_5$  and tetrahydrofuran (THF).

31-49. (Canceled)

**REMARKS**

Claims 1-21, 26-29 and 31-49 stand cancelled as being drawn to non-elected subject matter. Claims 22-25 and 30 are pending examination. No new claim amendments are presented at this time. Rather, reconsideration of the application is requested in view of the following remarks.

**Claim Rejections - 35 USC § 102**

Claims 22-25 and 30 stand rejected under 35 USC §102(b) over Dekker et al. (*Organometallics*, 3(9), pp. 1403-1407, 1984). The Office Action alleges that Dekker et al. disclose the ethyl ester of bromoacetic acid in dimeric form. The Office Action specifically points to Dekker's abstract on page 1403, Table II in the second column of 1404, and the "Discussion" on page 1406 in column 1 and column 2, as well as equilibria (2) on line 3.

The rejection is respectfully traversed. The cited document does not teach or suggest the features of the present invention. As such, it is insufficient to sustain the rejection.

Applicant disagrees with the position taken and submits that Dekker et al. *did not obtain a crystal* of  $(BrZnCH_2COOC_2H_5 \cdot THF)_2$ .

As an initial matter, it is noted that the term "bromoacetic acid" is stated in the Office Action at page 3, 5<sup>th</sup> line from the bottom, and at page 6, 8<sup>th</sup> line. Applicant believe the term was intended to be read as --bromozincacetic acid--.

First, the Office Action asserts at page 4, 2<sup>nd</sup> line from the bottom "...the reagents (i.e., the ethyl reagent) are formed and isolated in solid form."

Reference is made to Dekker et al. at page 1404, column 1, "Preparation of the Reagent". Applicant acknowledges that a tert-butyl reagent and an ethyl reagent were obtained in solid forms.

However, for the ethyl reagent, Dekker et al. states: "For the ethyl reagent this [Applicant's notation: *isolation*] was done by evaporation of the solvent (yield 75%)" (Emphasis added). On the other hand, for the tert-butyl agent, Dekker et al. states "tert-butyl reagent was isolated by concentrating the supernatant liquid, after which [Applicant's notation: *isolation*] the reagent crystallized" (Emphasis added).

Accordingly, Dekker et al. obtained the ethyl reagent as a solvent-free solid isolation but **not as a crystal**. Whereas Dekker et al. obtained the tert-butyl reagent as a crystal. This demonstrates that among the solid form of reagents, only the tert-butyl reagent could be obtained in a crystalline form and the ethyl reagent could not be crystallized.

Second, the Office Action goes on to allege at page 4, bottom line, to page 5: "On page 1404 in column 2, the last sentence before "Results", Dekker et al. disclose the reference, instrumentation, and program used for crystal structure determination."

Applicant submits that it is amply clear that the description of Dekker et al. on page 1404 in column 2 refers only to crystals of the tert-butyl reagent as the title of that section is "Data Collection and Structure Determination of  $(\text{BrZnCH}_2\text{COO}t\text{-bu}\cdot\text{THF})_2$ ".

Third, the Office Action further asserts at page 5, line 3, to page 6, line 8: "On page 1404 in column 3, under "Results", Dekker et al. states...[that they] have employed molecular weight measurements to determine the degree of association of the Reformatsky reagents derived from both the ethyl and the tert-butyl ester of bromoacetic acid." The Office action contends that "hence, Dekker et al. disclose the ethyl ester of bromoacetic acid in dimeric form."

Applicant acknowledges that Dekker et al. discloses a reagent of ethyl ester of bromozincacetic acid in dimeric form. However, Applicant asserts that Dekker et al. **did not obtain any crystal** of  $(\text{BrZnCH}_2\text{COOC}_2\text{H}_5\cdot\text{THF})_2$ , as discussed above.

Additionally, Dekker et al. stated in a previous journal article (*J. Chem. Soc., Chem. Commun.* (1983) pages 553-555; copy attached) which was published prior to the publication date of the cited document and related to the same two Reformatsky reagents: "In our exploration of organozinc co-ordination chemistry, we have been studying the classical Reformatsky reagent (1) derived from  $\text{BrCH}_2\text{CO}_2\text{Et}$ . Since no single crystals of this species could be obtained, this study had to be confined to the characterization of the species in solution." See page 554, column 1 (emphasis added). This supports Applicant's position that Dekker et al. has not obtained crystals of  $(\text{BrZnCH}_2\text{COOC}_2\text{H}_5\text{-THF})_2$ .

In sum, Dekker's ethyl reagent did not crystallize and Dekker et al. was not able to obtain crystals of ethyl bromozincacetate according to the present invention. Only the tert-butyl reagent could be obtained in a crystalline form.

Indeed, the cited reference fails to teach or suggest the features of the claimed invention. Consequently, Dekker et al. does not anticipate the present invention. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 22-25 and 30 under 35 USC §102(b) over Dekker et al.

In view of the foregoing, Applicant believes the pending application is in condition for allowance.

**PETITION FOR EXTENSION AND FEE AUTHORIZATION**

Applicant requests a one month extension of time for filing the within response. The Commissioner is hereby authorized to charge the fee for the extension and any other fees due or asserted to be due with this response to Deposit Account No. 04-1105.

Dated: December 19, 2008

Respectfully submitted,

Electronic signature: /Nicholas J. DiCeglie, Jr./  
Nicholas J. DiCeglie, Jr.  
Registration No.: 51,615  
Christine C. O'Day  
Registration No.: 38,256  
EDWARDS ANGELL PALMER & DODGE LLP  
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Attorneys/Agents For Applicant

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b> <b>FY 2009</b> <i>(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)</i>		Docket Number (Optional) <b>68143(70820)</b>																								
Application Number	10/500,999-Conf. #3369	Filed <b>October 1, 2004</b>																								
For <b>PROCESS FOR PRODUCING FUSED IMIDAZOLE COMPOUND, REFORMATSKY REAGENT IN STABLE FORM, AND PROCESS FOR PRODUCING THE SAME</b>																										
Art Unit	1626	Examiner <b>L. Stockton</b>																								
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.																										
The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):																										
<table> <thead> <tr> <th></th> <th><u>Fee</u></th> <th><u>Small Entity Fee</u></th> <th></th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))</td> <td>\$130</td> <td>\$65</td> <td>\$ 130.00</td> </tr> <tr> <td><input type="checkbox"/> Two months (37 CFR 1.17(a)(2))</td> <td>\$490</td> <td>\$245</td> <td>\$ _____</td> </tr> <tr> <td><input type="checkbox"/> Three months (37 CFR 1.17(a)(3))</td> <td>\$1110</td> <td>\$555</td> <td>\$ _____</td> </tr> <tr> <td><input type="checkbox"/> Four months (37 CFR 1.17(a)(4))</td> <td>\$1730</td> <td>\$865</td> <td>\$ _____</td> </tr> <tr> <td><input type="checkbox"/> Five months (37 CFR 1.17(a)(5))</td> <td>\$2350</td> <td>\$1175</td> <td>\$ _____</td> </tr> </tbody> </table>				<u>Fee</u>	<u>Small Entity Fee</u>		<input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$130	\$65	\$ 130.00	<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$490	\$245	\$ _____	<input type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1110	\$555	\$ _____	<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$1730	\$865	\$ _____	<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$2350	\$1175	\$ _____
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<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$2350	\$1175	\$ _____																							
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. <input type="checkbox"/> A check in the amount of the fee is enclosed. <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. <input checked="" type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>04-1105</u>																										
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.																										
I am the <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96). <input checked="" type="checkbox"/> attorney or agent of record. Registration Number <u>51,615</u> <input type="checkbox"/> attorney or agent under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____																										
<u>/Nicholas J. DiCeglie, Jr./</u> Signature		December 19, 2008 Date																								
<u>Nicholas J. DiCeglie, Jr.</u> Typed or printed name		(617) 517-5558 Telephone Number																								
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.																										
<input type="checkbox"/> Total of <u>1</u> forms are submitted.																										

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Dated: December 19, 2008

Electronic Signature for Nicholas J. DiCeglie, Jr.: /Nicholas J. DiCeglie, Jr./

**Lindsey, Doug**

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**From:** Lindsey, Doug  
**Sent:** Tuesday, January 27, 2009 12:11 PM  
**To:** 'Grove, Beth'  
**Cc:** Sandara, Sengphet (IAP)  
**Subject:** PTO DEPOSIT ACCOUNT 041105 - 10500999  
**Attachments:** 68143(70820) - Amendment.DOC; 68143(70820) - Petition for Extension of Time Under 37 CFR 1.136(a) (PTO SB-22).DOC

Beth, the transmittal was captured in our imaging system 12/19/2009 but the sale for the EXT was not processed.

Sengphet, I have printed out a copy of the attached and will forward to you in-house to process the sale in RAM.

Douglas M. Lindsey  
U.S. Patent & Trademark Office  
Office of Finance - RAD  
RAM Administration  
W (571) 272-6344  
doug.lindsey@uspto.gov

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**From:** Grove, Beth [mailto:[BGrove@eapdlaw.com](mailto:BGrove@eapdlaw.com)]  
**Sent:** Tuesday, January 27, 2009 11:48 AM  
**To:** Lindsey, Doug  
**Subject:** PTO DEPOSIT ACCOUNT 041105

Hello Doug,

I am looking for this charge for 12/19/08. This has not hit our PTO Charge..Please advise if there was a fee.

Thanks,  
Beth

Beth A. Grove  
Accounts Payable Coordinator  
Edwards Angell Palmer & Dodge, LLP  
2800 Financial Plaza  
Providence, RI 0203 USA  
Direct Number 401-276-6510  
Fax Number 401-528-5826  
Main Number 401-274-9200

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